

# Restoring Santa Monica Bay

Overview

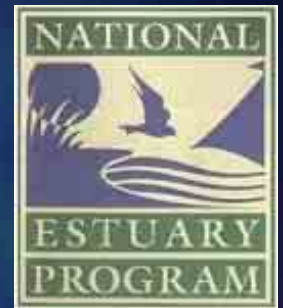
Santa Monica Bay Restoration Commission

October 2003

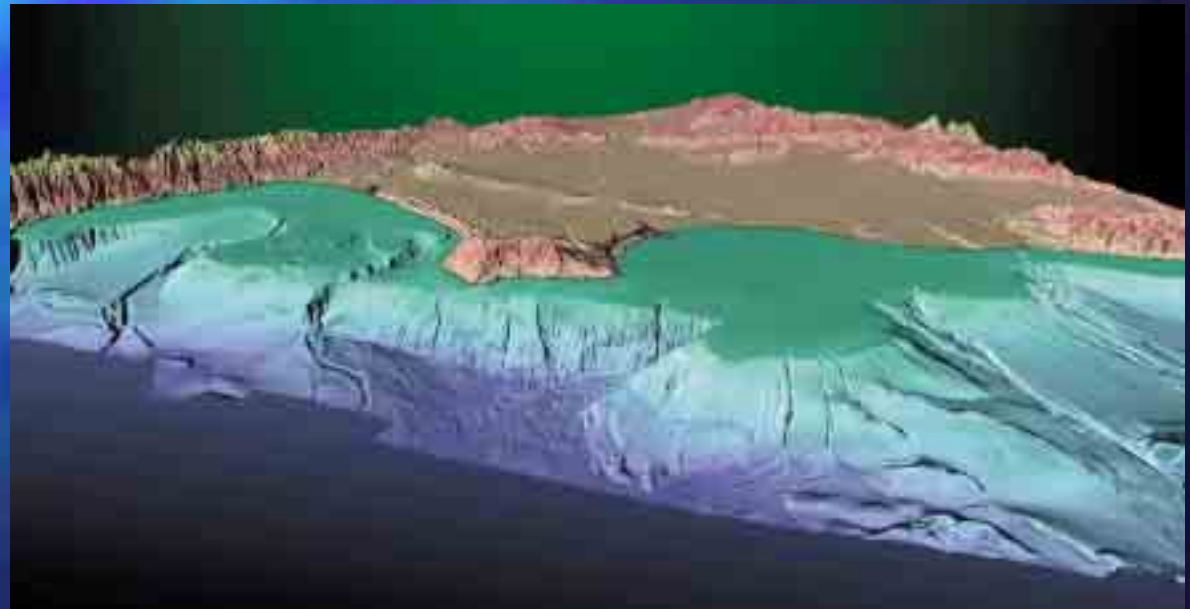


# Organization History

- SMBRP established as a National Estuary Program by USEPA and State of CA (1989)
- One of 28 programs nationwide designated under Section 320 of the Clean Water Act
- Partnership of federal, state and local, environmental, business, academic community
- Charged with developing a Comprehensive Conservation and Management Plan



# Santa Monica Bay and its Watersheds





# Values and Benefits-- Recreation, Economic Resource



# Coastal and Upland Habitats; Living Resources



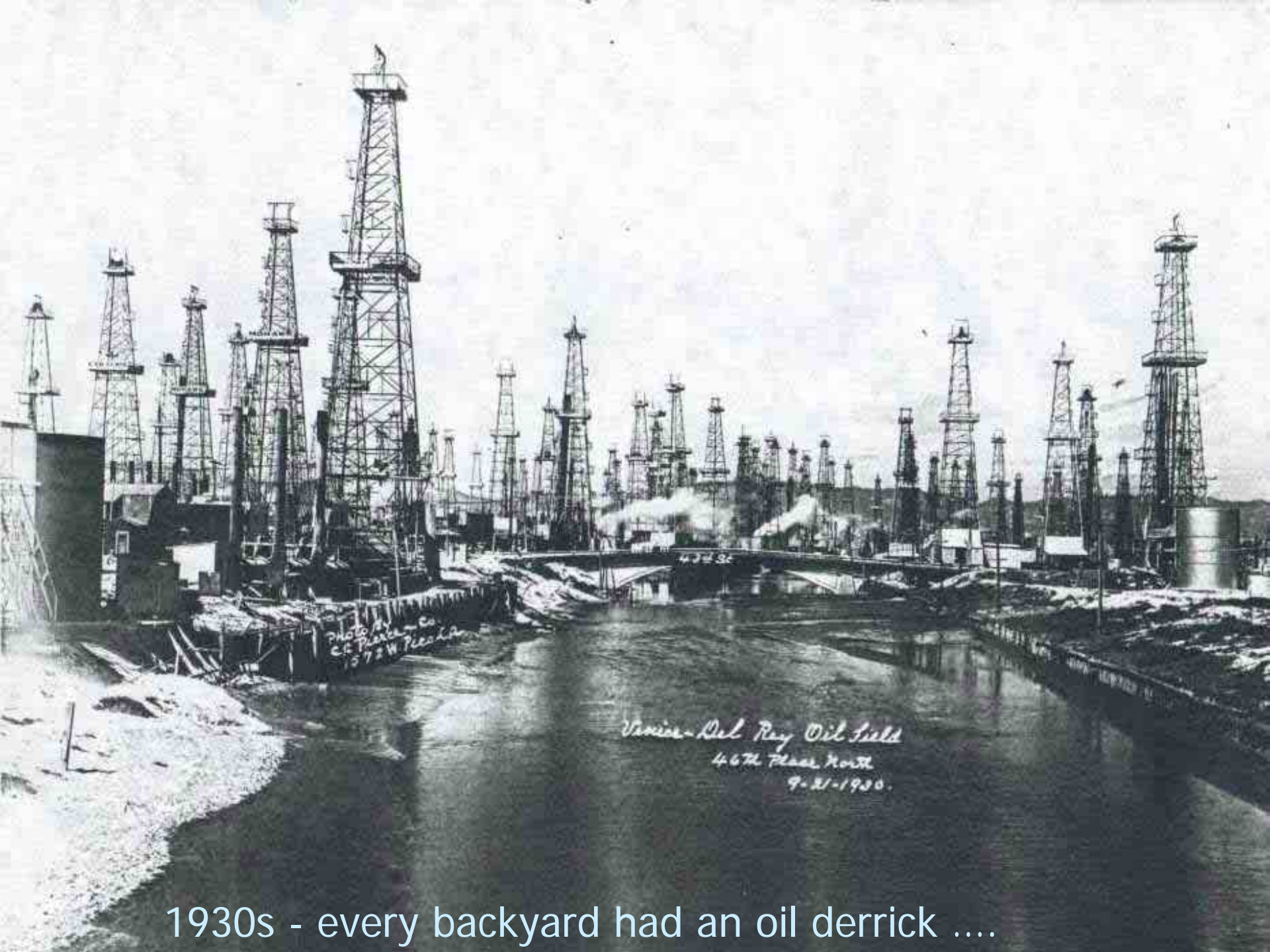




Duck hunting in the coastal marshes south of Santa Monica, about 1903. (—*Title Insurance & Trust Co.*)







*Venice-Del Rey Oil Field  
46th Place North  
9-21-1930.*

1930s - every backyard had an oil derrick ....





# Storm Water/Urban Runoff Pollution





# Non-point Pollutant Sources

- Boating and Marinas
- Septic systems
- Horses, domestic animals
- Aerial deposition



# Health Risks to Swimmers



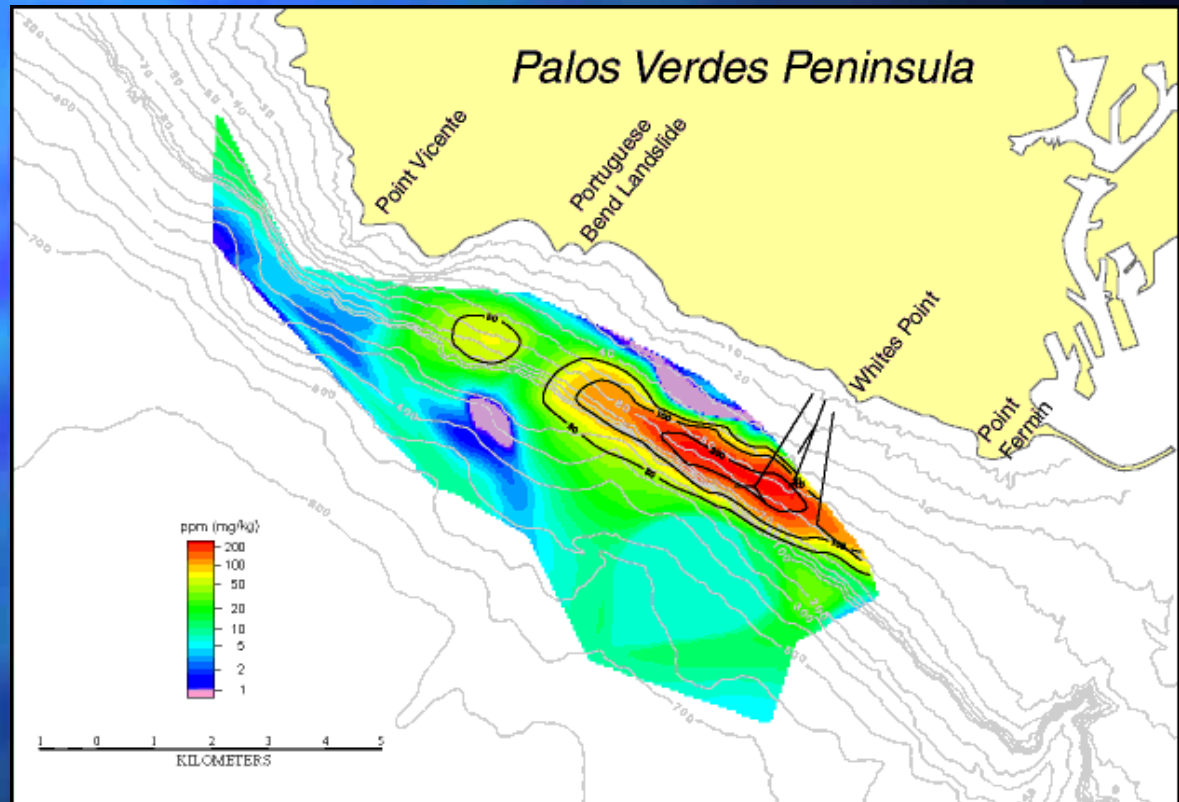
- Pathogens at beaches near storm drain outlets





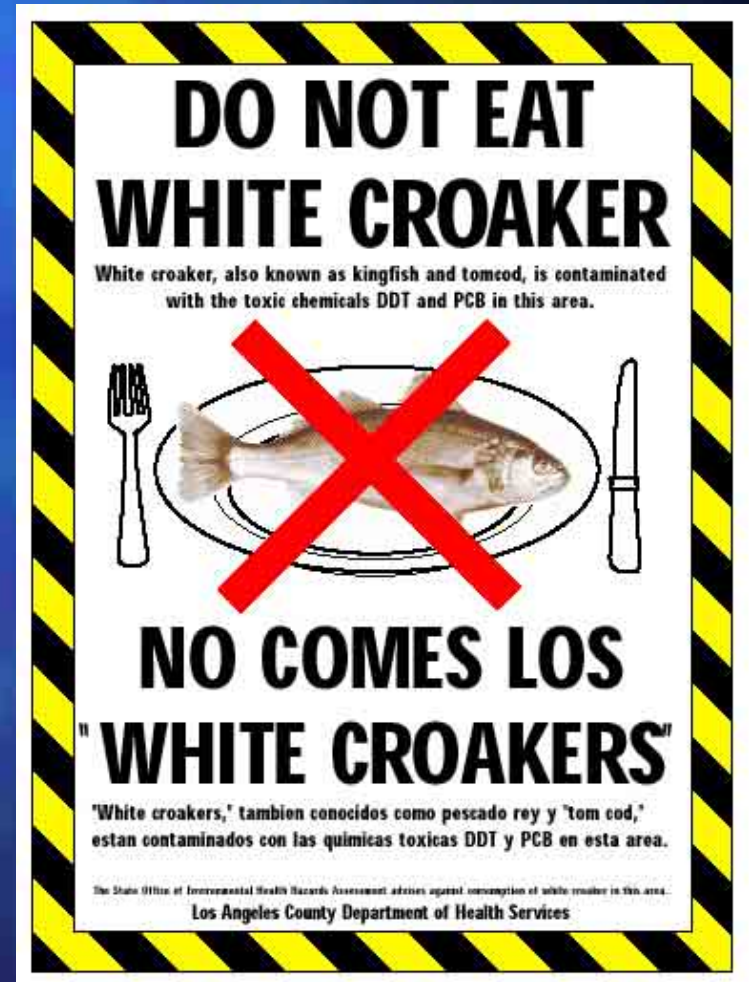
# Legacy Contaminants

- Over 1,700 tons of DDT were discharged to the Bay from late 50s to early 70s
- Current footprint ~17 square miles



# Contaminated Seafood

- DDT and PCB contamination of several sport fish species





# Impacts to Living Resources

- Loss of wetlands, coastal habitats, riparian corridors
- Rare, threatened and endangered species
- Invasive and non-native plants and animals



# Bay Restoration Goals

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- Santa Monica Bay Restoration Plan (1995), a comprehensive watershed management plan

Goals:

- Reduce pollutant loads
- Protect the public from health risks
- Restore, rehabilitate and protect the marine ecosystem, living resources and bio-diversity of the Bay and its watersheds

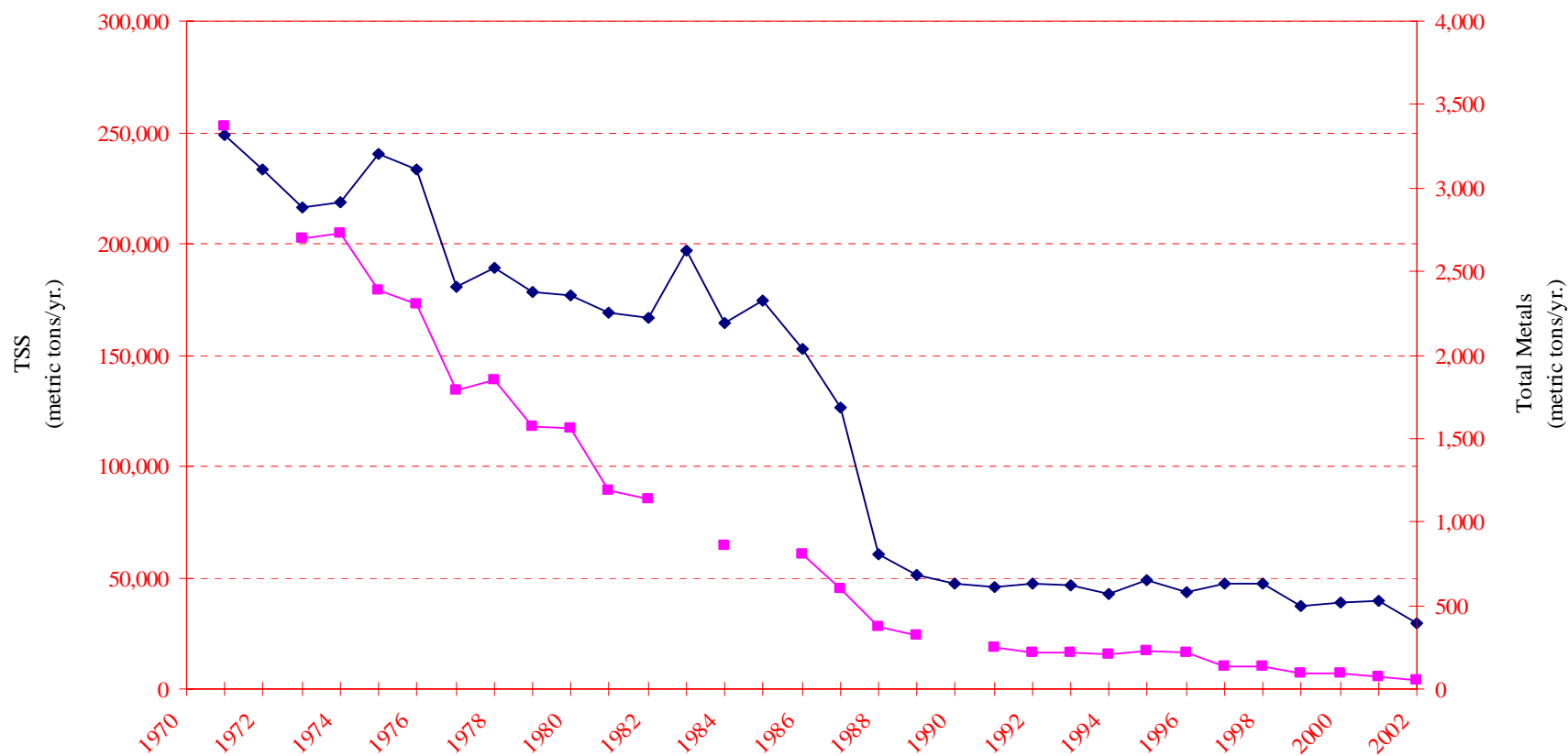


# 250 Actions

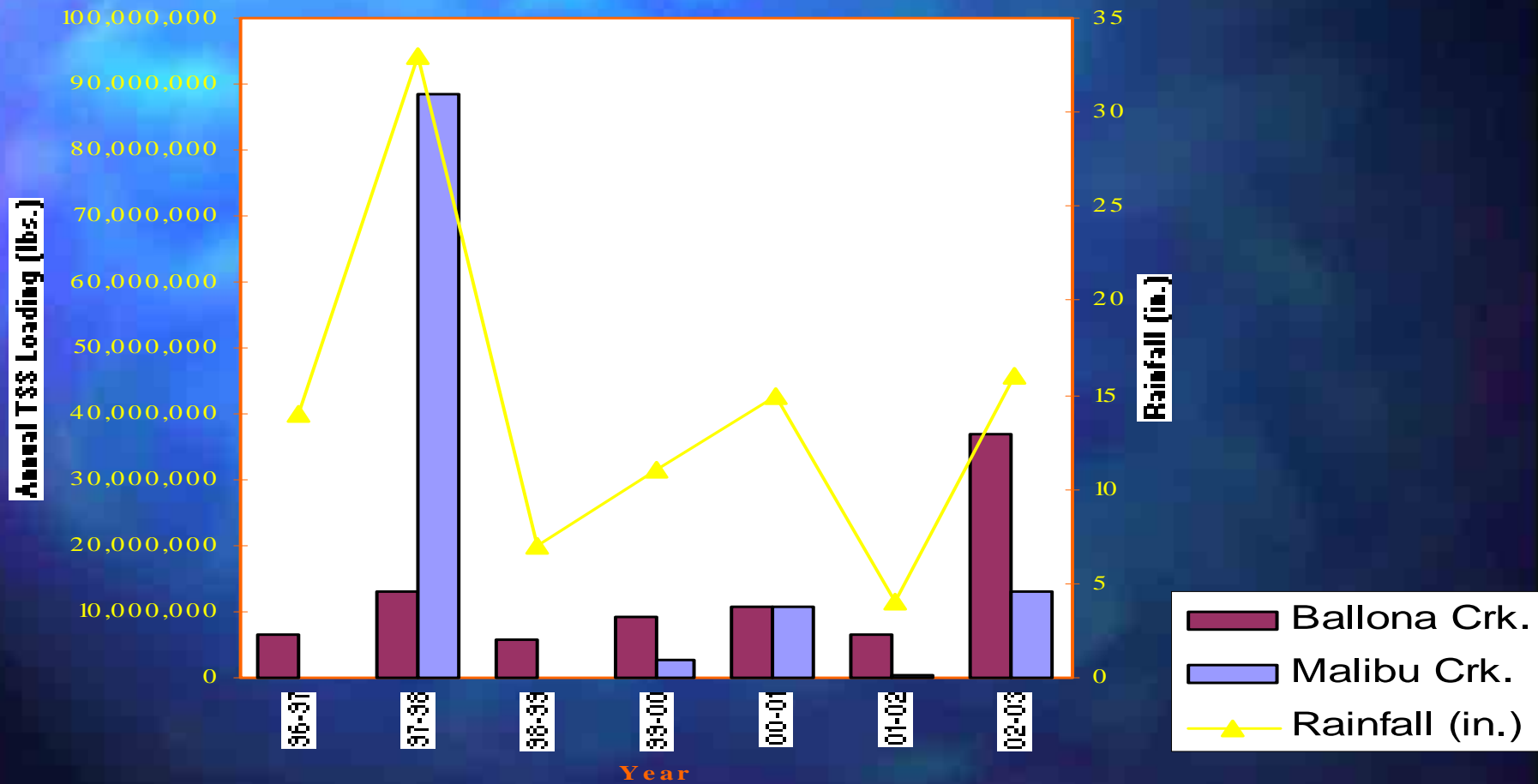
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- Capital projects and investments in pollution control infrastructure
- Habitat restoration
- Enhancement of regulatory framework
- Public education and outreach
- Monitoring and research
- Coordinated oversight
- Financing

# Significant Pollutant Load Reductions at HTP and JWPCP

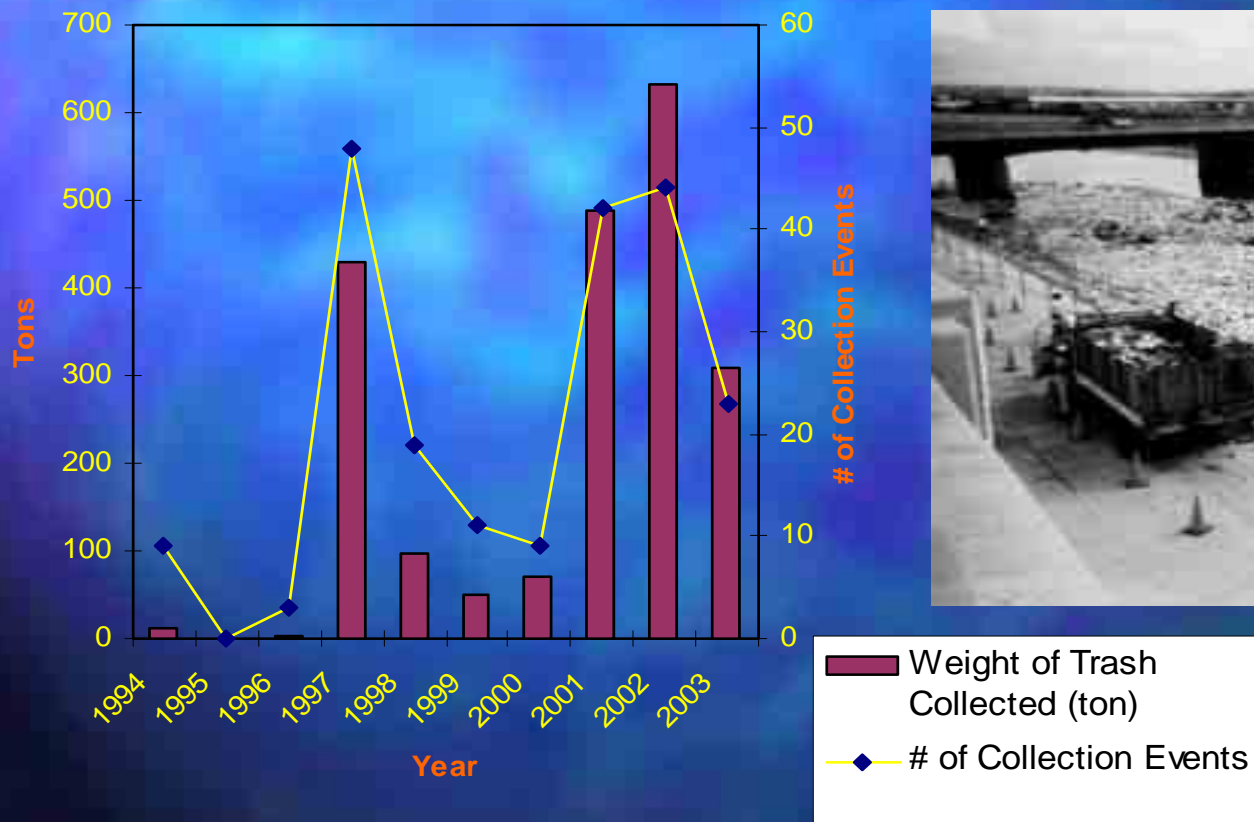


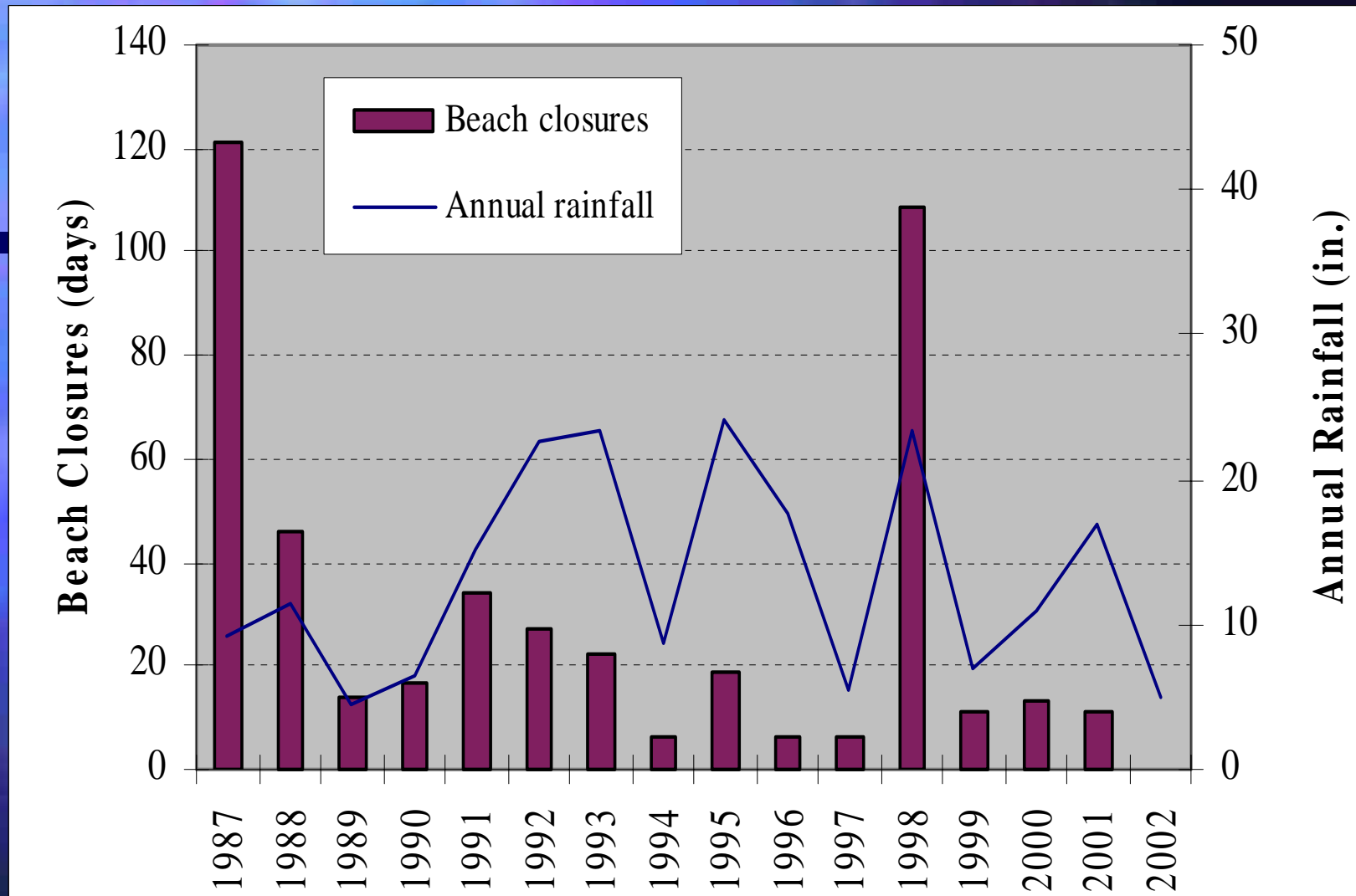
# Storm Water Runoff





# Storm water pollution



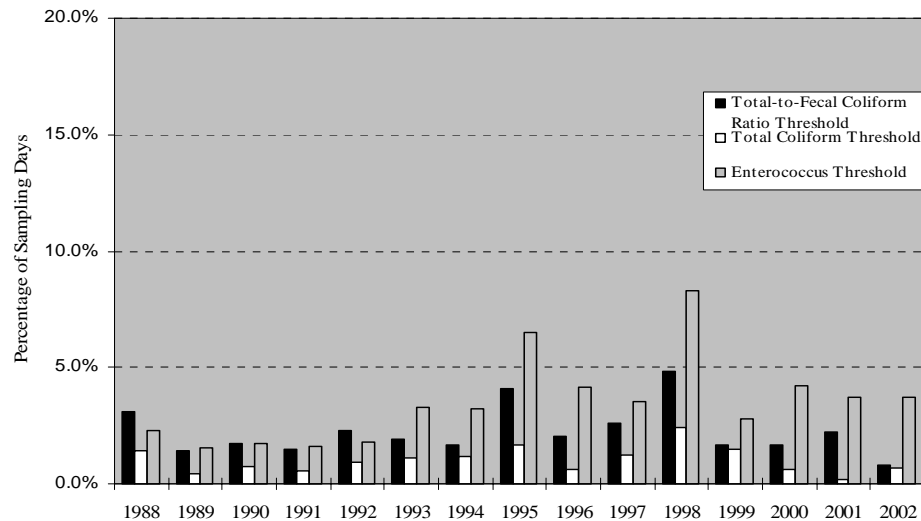


Significant declines in beach closures due to sewage spills...

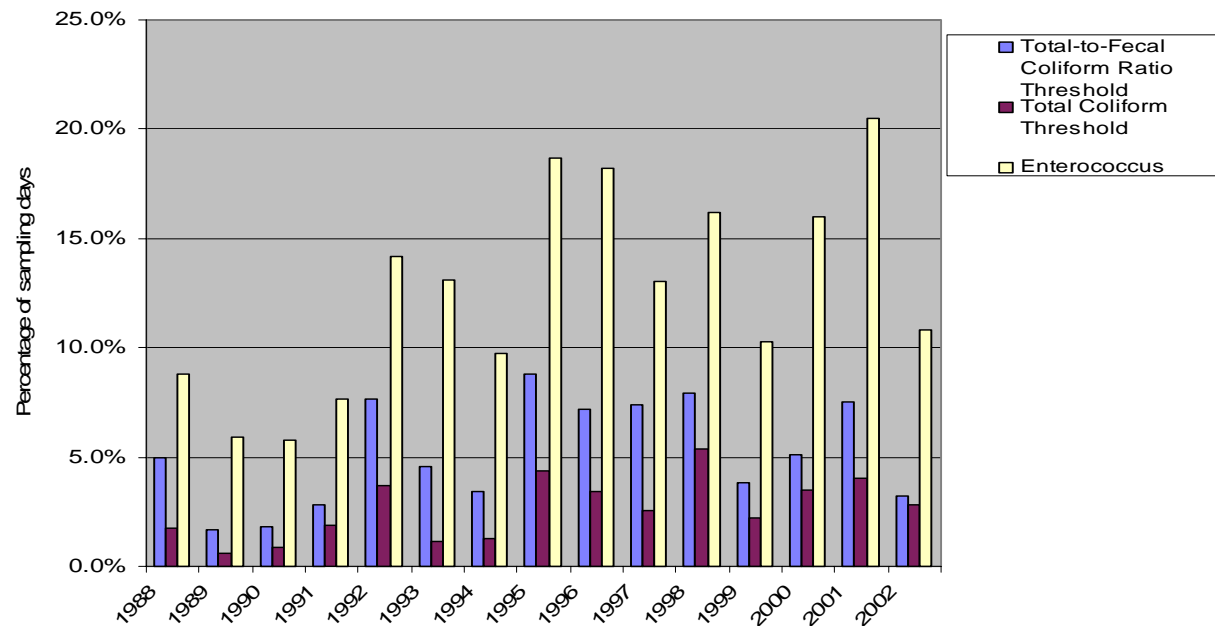


- Beach water quality during summer gradually improving
- Greater number of exceedances during wet season, no signs of improvement

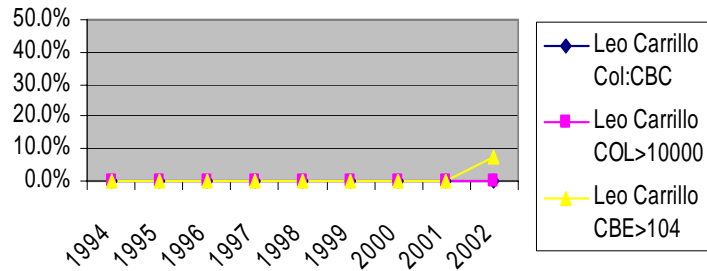
Exceedances of Bacterial Health Risk Indicators at Santa Monica Bay Beaches Dry Season (April 15 - October 15)



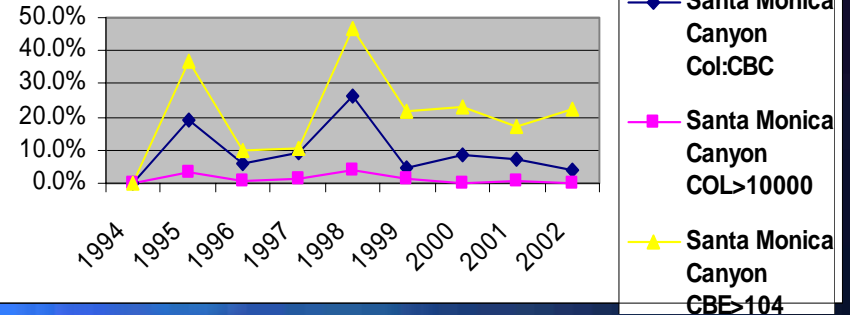
Exceedances of Bacterial Health Risk Indicators at Santa Monica Bay Beaches Wet Season (October 16 - April 14)



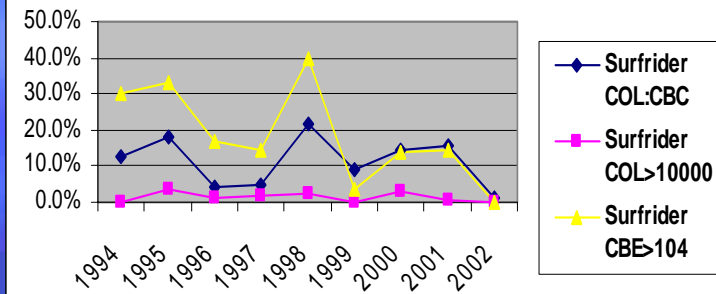
## Leo Carrillo Beach



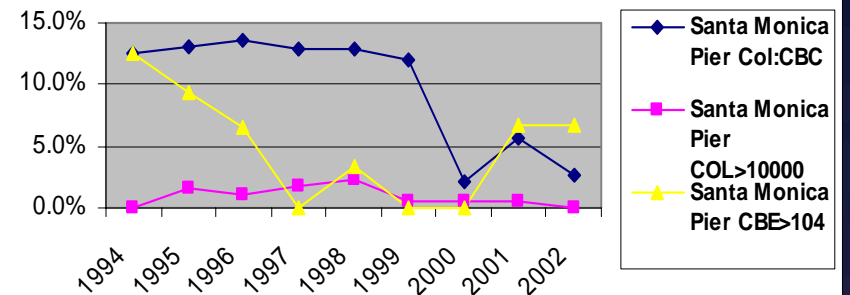
## Santa Monica Canyon



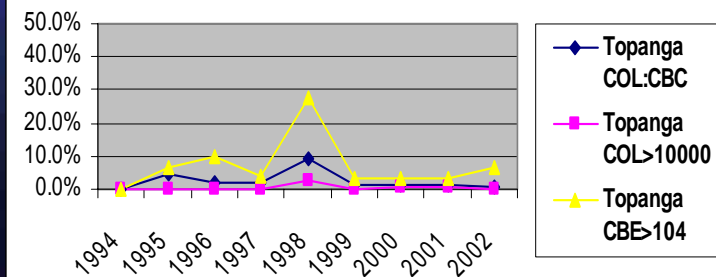
## Surfrider Beach



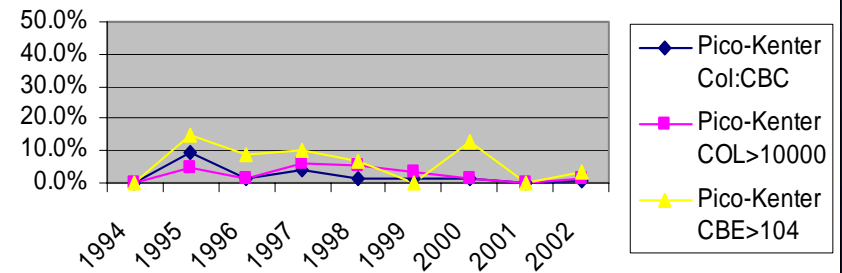
## Santa Monica Pier



## Topanga Beach

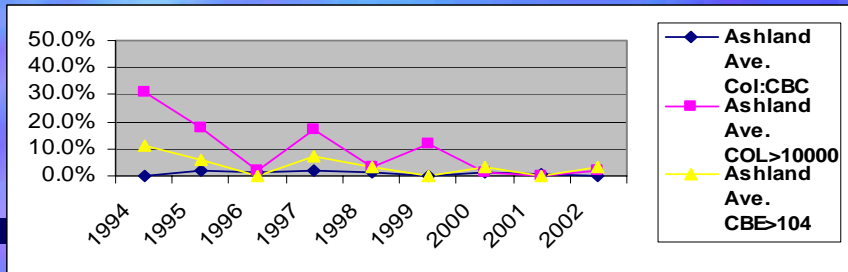


## Pico-Kenter Drain

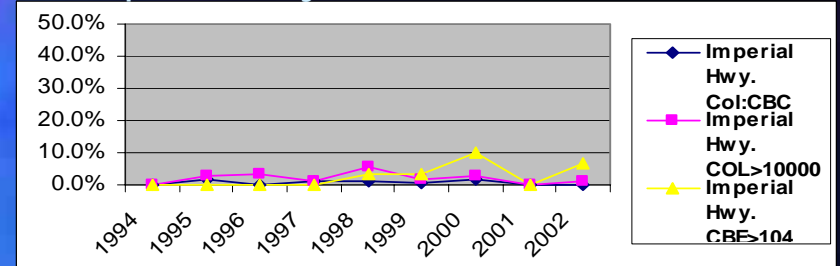




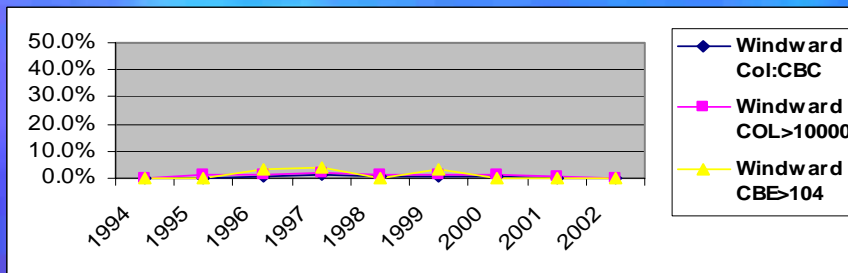
## Ashland Ave.



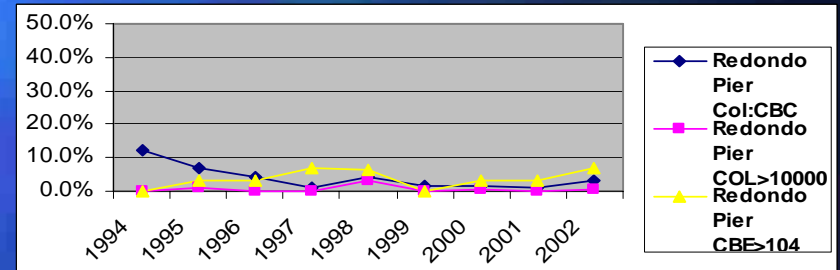
## Imperial Hwy.



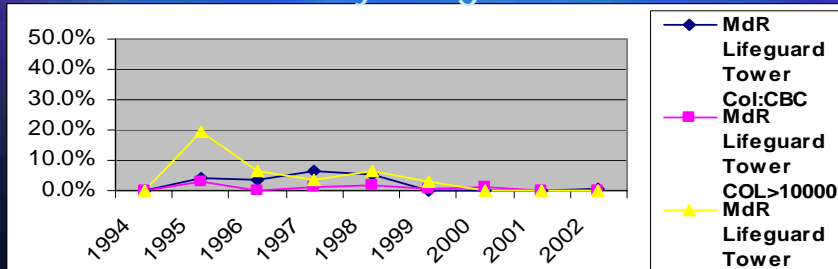
## Windward Ave.



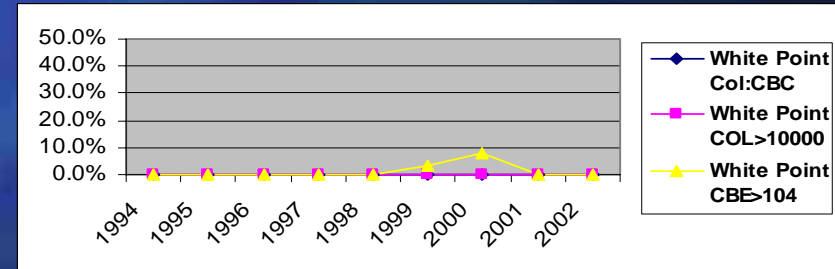
## Redondo Pier



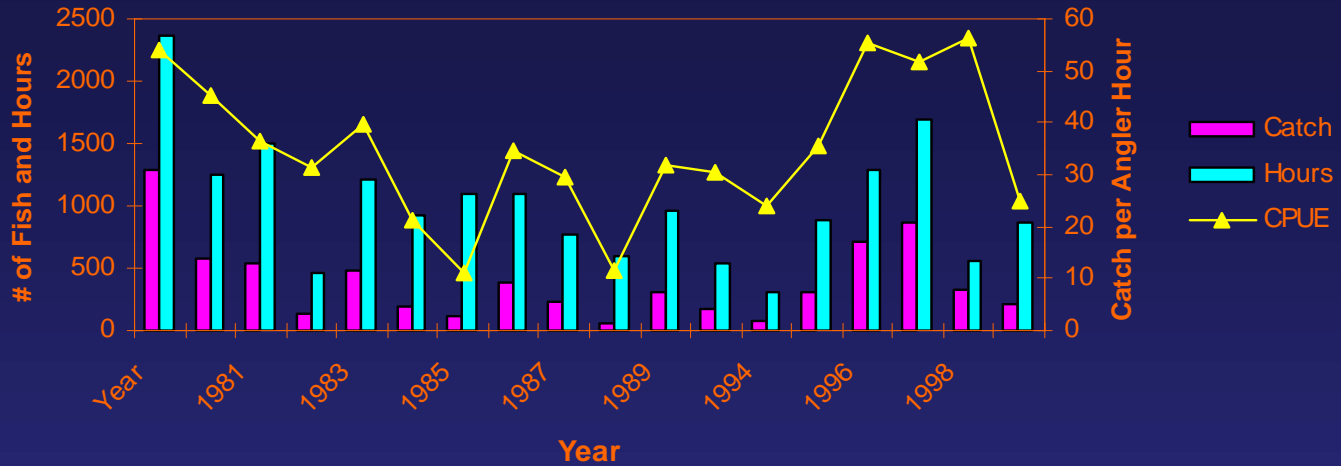
## Marina del Rey Lifeguard Tower



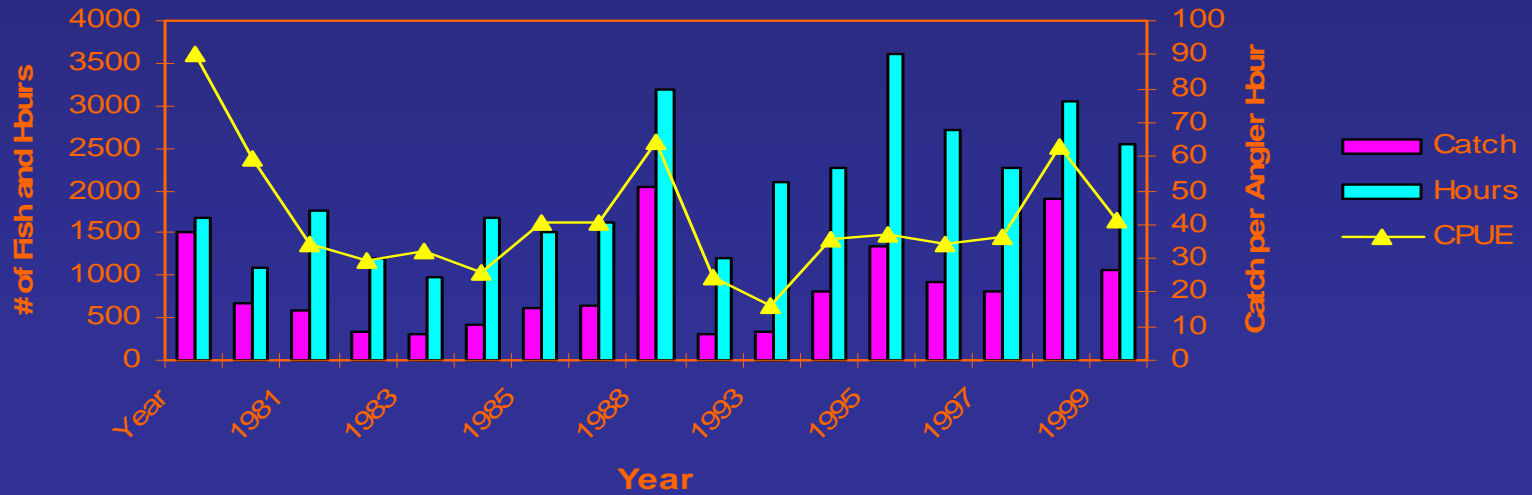
## White Point

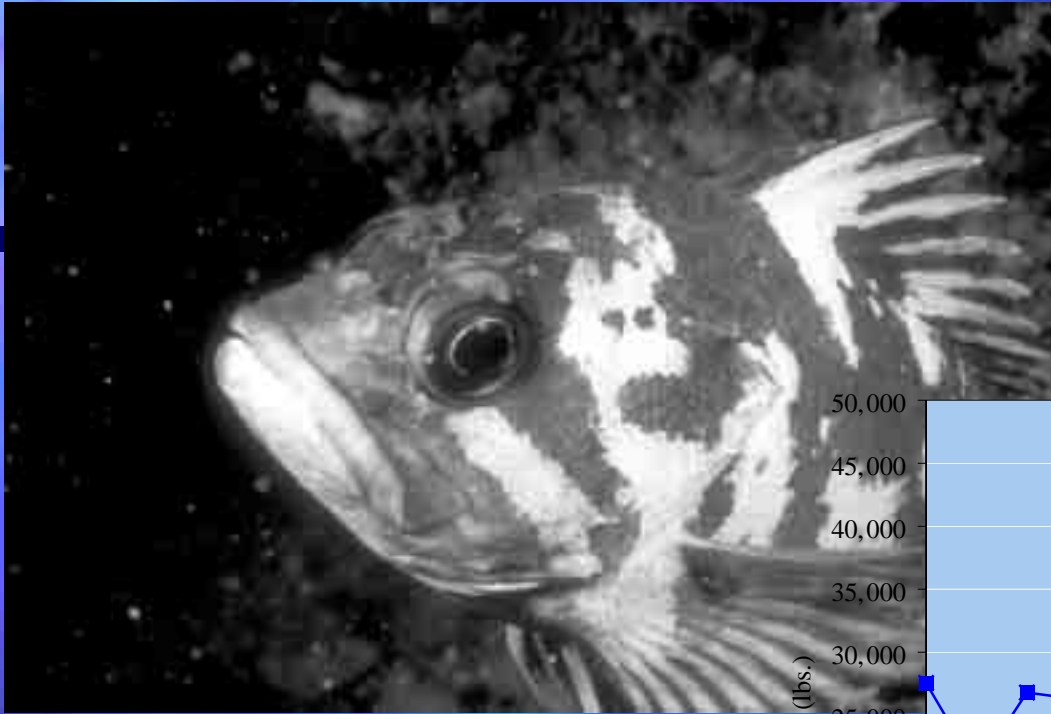


### Fish Catch vs. Hours Spent Fishing on Shore in Santa Monica Bay



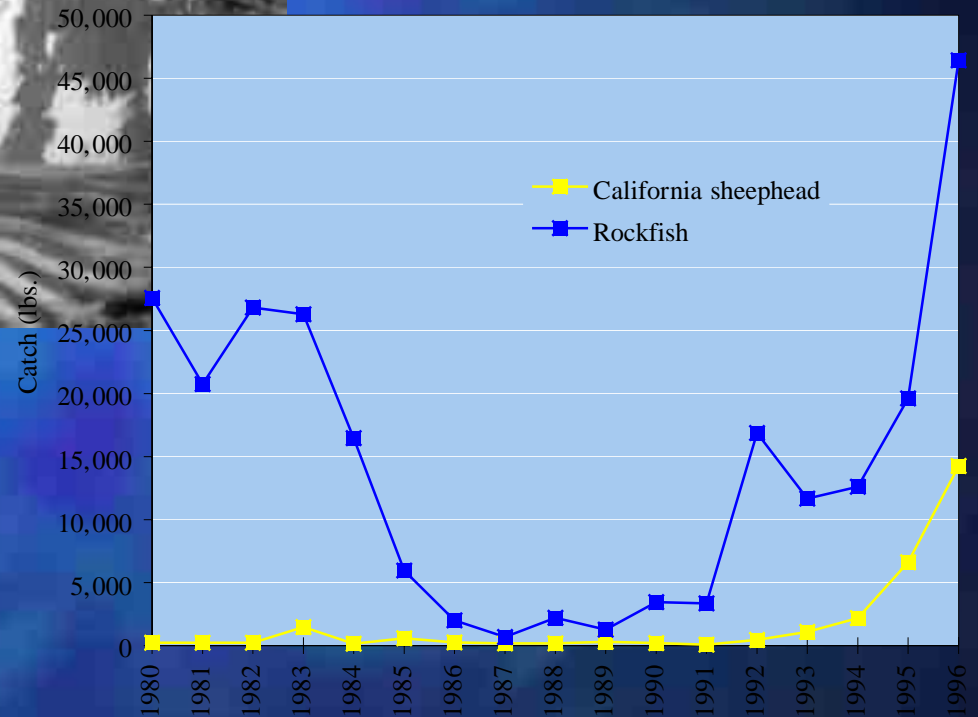
### Fish Caught vs. Hours Spent Aboard Party Boats in Santa Monica Bay





## LIVING RESOURCES

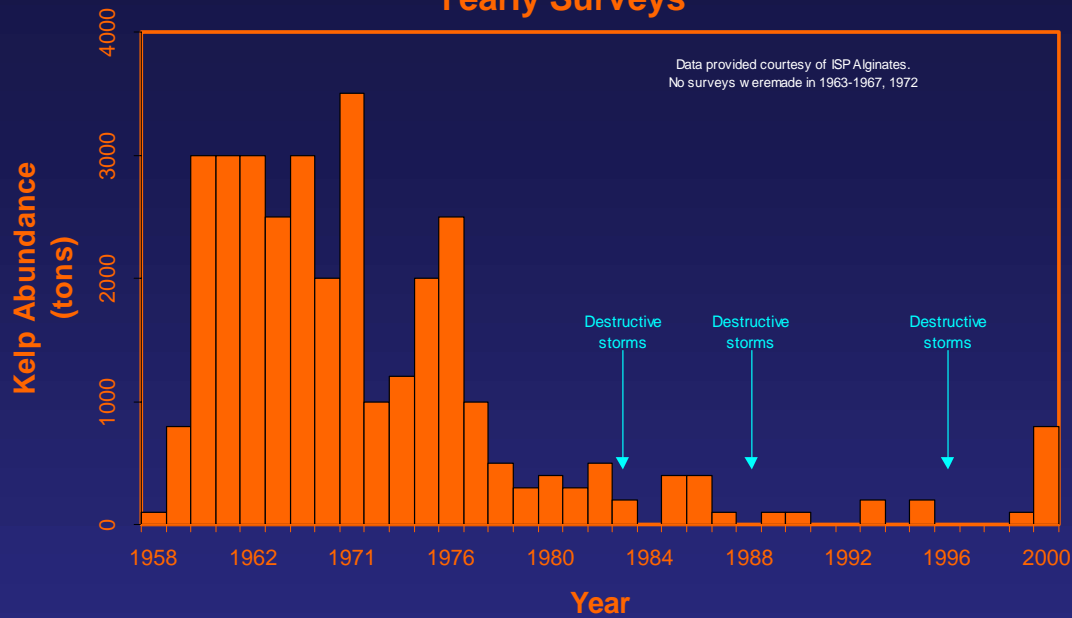
- Rockfish populations have declined
- Black abalone has virtually disappeared



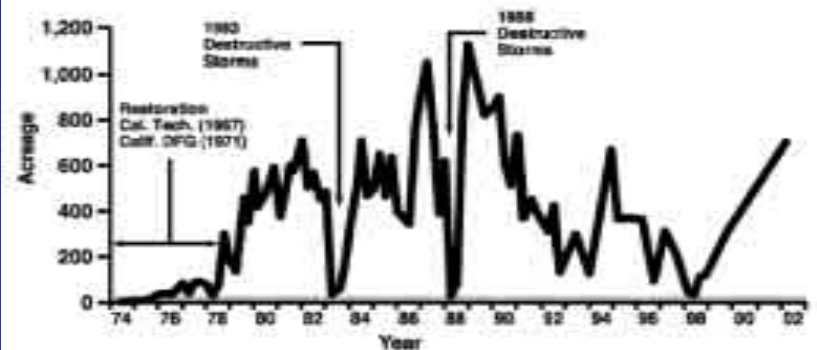
Commercial rockfish catch from SM Bay



## Malibu Kelp Forests (DF&G bed #16) Yearly Surveys



## Palos Verdes Giant Kelp Canopy Data from California Dept. of Fish & Game



# Santa Monica Mountains

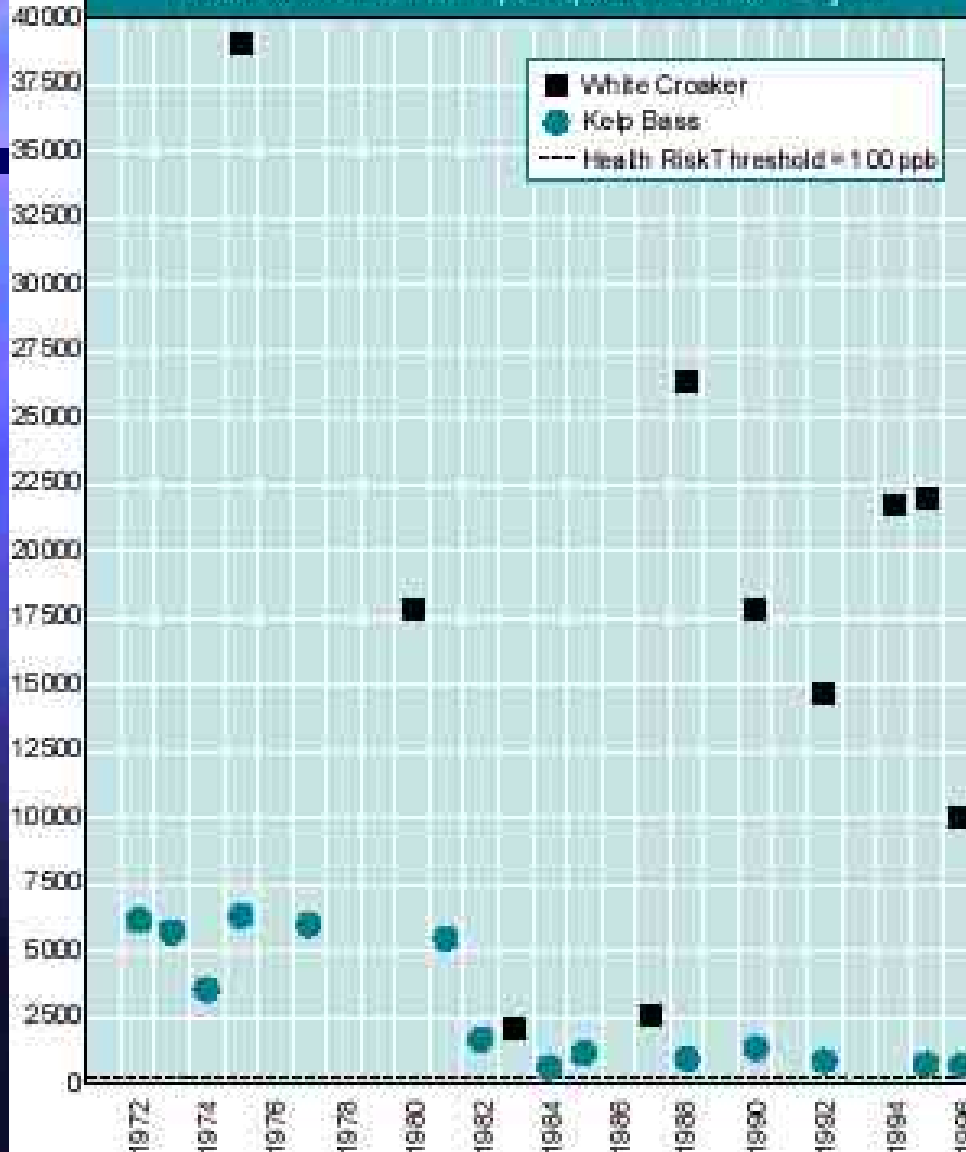
- 
- This map illustrates the coastal environment of the Santa Monica Mountains. The land area is depicted with a grayscale shaded relief topographic map, showing rugged terrain and numerous drainage basins outlined in blue. The coastline runs horizontally across the middle of the image. Along the coast, several features are highlighted: red outlines indicate areas where kelp has been lost, while green outlines show the current extent of kelp coverage. Black patches represent hard bottom habitat, and gray patches represent mixed soft sediments and hard substrate. The majority of the offshore area is colored tan, representing soft bottom habitat. A legend in the lower-left corner defines these symbols. A scale bar at the bottom indicates distances up to 4 miles, and a north arrow is located in the bottom-right corner.
- Areas of Kelp Loss
  - Current Kelp Coverage
  - Hard Bottom Habitat
  - Mixed -Soft Sediments & Hard Substrate
  - Soft Bottom Habitat

0 2 4 Miles



## DDT in Fish Tissue

(mean concentration in parts per billion wet weight)



## SEAFOOD CONTAMINATION

- DDT and PCB concentrations in fish tissue have declined significantly over the last 25 years
- Concentrations in white croaker and kelp bass remain at unsafe levels (especially near the Palos Verdes shelf)



# HABITAT RESTORATION

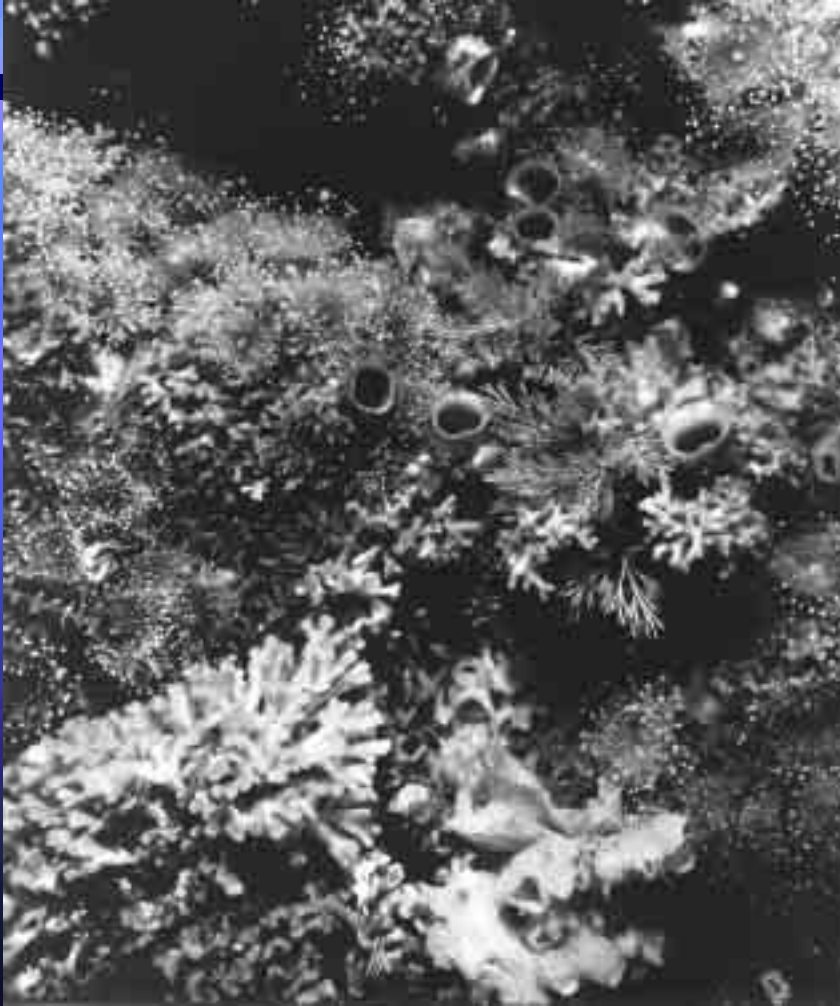
Some small areas of coastal habitat have been restored...



But progress has been slow for Ballona Wetlands and Malibu Lagoon...



## LIVING RESOURCES



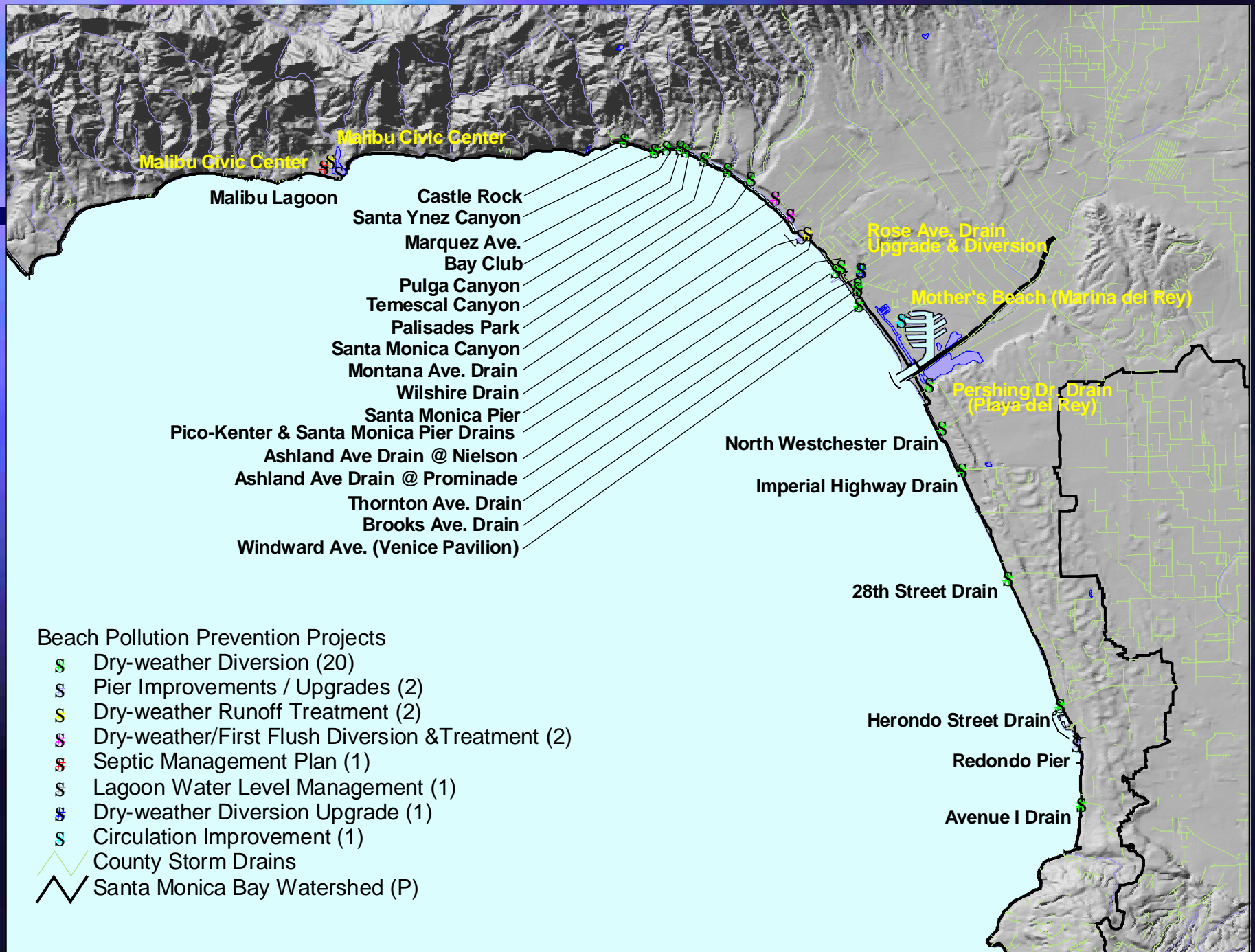
- Health of benthic habitat has improved, but the Bay's bottom sediments are still more contaminated than elsewhere in the Bight
- No "dead zones"
- Tumors, fin erosion rarely seen
- CA sea lion, CA least tern, El Segundo blue butterfly populations increasing

# Bond Funds Promote Progress

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- LA County Proposition A
- Proposition 12
- Proposition 13
- Clean Beaches Initiative
- Proposition 50





# Storm Water Pollution Prevention Projects





# Habitat Restoration Projects

- Kelp habitat restoration
- *Arundo donax* eradication
- Rocky intertidal habitats
- Removal of obstacles to steelhead migration
- Ballona Dunes
- Tuna Canyon





# Habitat Restoration

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- Solstice Creek
- Madrona Marsh
- Topanga Lagoon and Lower Watershed
- Las Virgenes Creek



# State Bonds

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- \$25 million - Proposition 12
- To date, \$13.7m allocated
  - \$3.959 habitat restoration
  - \$8.467 pollution prevention
  - \$1.282 education, research
- \$20 million - Proposition 50

# Bay Commission

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- Established by SB 1381 of 2002
- As a “non regulatory, locally based state government entity that will monitor, assess, coordinate and advise all state programs and oversee funding that affects the beneficial uses, restoration and enhancement of Santa Monica Bay and its watersheds.”

# Mission and Goal

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- "To restore and enhance Santa Monica Bay through actions and partnerships that improve water quality, conserve and rehabilitate natural resources and protect the Bay's benefits and values."
- "To accelerate the pace, extent and effectiveness of Santa Monica Bay restoration through implementation and financing of actions that improve water quality, conserve and rehabilitate natural resources and protect the health of the Bay's recreational users."



# Commission Authorities

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- Request and receive funds and expend those funds for the restoration and enhancement of the Bay and watersheds
- Enter into contracts and joint powers agreements
- Monitor, assess and coordinate activities among federal state and local agencies

# Functions of the SMBRC

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- Oversee implementation of the Bay Restoration Plan
- Provide an open and neutral forum of inter-agency/inter-organizational discussion and consensus building
- Promote participation, collaboration and partnerships among Bay stakeholders essential to watershed protection efforts

# Governance Structure

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- Governing Board
- Bay Watershed Council
- Technical Advisory Committee

# Governing Board

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- Policy making body of the Commission
- Approves bond proceed expenditures, budgets, resolutions, Restoration Plan amendments
- Enters into legal agreements
- Membership does not diminish regulatory responsibilities or authority of any participating body



# Bay Watershed Council

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- Advises the Governing Board
- Elects 9 members to the Governing Board
- Develops recommendations for adoption by the Governing Board
- Promotes broad participation and involvement

# Technical Advisory Committee

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- Promote sound science that advances implementation of Bay Restoration Plan
- Provide technical/scientific oversight of projects
- Members appointed by the Governing Board

# Initial Bond Financing Priorities

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## ■ By 2008

- Reduce trash to the Bay by 50%
- Install storm water BMPs for pollutants of concern at high priority sites
- Achieve zero dry-weather beach closures at Santa Monica Bay beaches
- Increase kelp habitat by 20%

## ■ By 2013

- Restore Ballona Wetlands
- Restore Malibu Lagoon

# Major Initiatives for FY 03-04

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- Fund and staff priority projects
- Issue State of the Bay 2004 report
- Sponsor a State of the Bay Conference
- Establish a Joint Powers Authority to facilitate funding and operation of the Commission